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57. (New) The device according to claim 42 wherein each injector of the injector assembly includes a replaceable nozzle.

58. (New) The device according to claim 57 wherein each nozzle is constructed from the same material as the target cathode.

59. (New) The device according to claim 57 wherein each nozzle is constructed from a material different from the target cathode.

60. (New) The device according to claim 42 comprising an injector assembly holder secured to the injector assembly and adapted to circulate a heat transfer medium to remove heat from the injector assembly.

61. (New) A sputter transport device comprising:
- (a) a sealable, pressure-controlled chamber;
 - (b) a target cathode holder disposed in the chamber;
 - (c) a magnetron assembly disposed in the chamber proximate to the target cathode;
 - (d) a substrate holder disposed in the chamber and spaced at a distance from the target cathode holder; and
 - (e) a negatively-biased, non-thermionic electron/plasma injector assembly disposed between the target cathode and the substrate holder, the injector assembly comprising:
 - (i) a main body having a generally annular orientation with respect to a central axis and including a process gas section and a cooling section, the process gas section defining a process gas chamber and the cooling section defining a heat transfer fluid reservoir; and
 - (ii) a plurality of gas nozzles removably disposed in the main body in a radial orientation with respect to the central axis

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and in heat transferring relation to the heat transfer fluid reservoir, each gas nozzle providing fluid communication between the process gas chamber and a region exterior to the main body.

62. (New) The device according to claim 61 wherein the target cathode holder is negatively biased.
63. (New) The device according to claim 61 comprising a heat exchanger system adapted for circulating a heat transfer medium to remove heat from the target cathode.
64. (New) The device according to claim 61 wherein the target cathode holder is generally cup-shaped and supports a target cathode comprising a liquid-phase component.
65. (New) The device according to claim 61 wherein the target cathode holder supports a target cathode.
66. (New) The device according to claim 65 wherein the target cathode comprises a Group III material.
67. (New) The device according to claim 66 wherein the Group III material is selected from the group consisting of aluminum, gallium, indium, and binary, ternary, and quaternary alloys and compounds thereof.
68. (New) The device according to claim 65 wherein the injector assembly is constructed from the same material as the target cathode.

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69. (New) The device according to claim 65 wherein the injector assembly is constructed from a material different from the target cathode.
70. (New) The device according to claim 61 wherein each injector of the injector assembly includes a replaceable nozzle.
71. (New) The device according to claim 70 wherein each nozzle is constructed from the same material as a target cathode supported by the target cathode holder.
72. (New) The device according to claim 70 wherein each nozzle is constructed from a material different from a target cathode supported by the target cathode holder.
73. (New) The device according to claim 61 comprising an injector assembly holder secured to the injector assembly and adapted to circulate a heat transfer medium to remove heat from the injector assembly.

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REMARKS

Status of the Application

In the present application, originally-filed claims 1 – 54 are pending. Claims 46 – 54 are withdrawn from consideration as being directed to non-elected subject matter. Accordingly, claims 1 – 45 have been substantively examined and are the subject of the present amendment, as well as new claims 55 – 73 discussed herein.

In the above-referenced Office Action dated March 5, 2003, claims 1, 2, 4, 6, 7, 9, 14, 18, 22, 24, 43 and 44 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,824,544 to Mikalesen et al. (hereinafter "Mikalesen et al."). Claims 1 – 12, 14, 18, 22 – 24, 28 – 30, 35, 43 and 44 are